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PATENT

AMENDMENTS TO THE CLAIMS

Following is a complete set of claims as amended with this Response. This complete set of claims includes amended claims 7, 13, and 19.

1. (Previously Cancelled)

2. (Previously Presented) A method as recited in claim 7 further comprising:
detecting a cardiac fibrillation;
administering a therapeutic shock to the heart of the patient at the adjusted DFSE set by the adjusting.

3. (Previously Presented) A method as recited in claim 7 further comprising:
detecting a cardiac atrial fibrillation (AF);
administering a therapeutic shock to an atrium of the patient at the adjusted DFSE set by the adjusting.

4. (Previously Presented) A method as recited in claim 7 further comprising:
detecting a cardiac ventricular fibrillation (VF);
administering a therapeutic shock to a ventricle of the patient at the adjusted DFSE set by the adjusting.

5. (Previously Presented) A method as recited in claim 7, wherein the improved DFSE for the patient approximately corresponds with a defibrillation threshold (DFT) of the patient.

6. (Previously Presented) A method as recited in claim 7, wherein the improved DFSE for the patient approximately corresponds with an optimum DFSE of the patient.

7. (Currently Amended) A method for determining an improved defibrillation shock energy (DFSE) for a patient, the method comprising:

monitoring and tracking cardiac data of a patient by an implantable cardiac therapy device (ICTD);

analyzing such cardiac data by the ICTD;

automatically adjusting the DFSE to a level based on cardiac data so that the ICTD may deliver a therapeutic shock at an energy level approximating an improved DFSE for the patient;

wherein the cardiac data comprises data selected from a group consisting of cardiac rate, cardiac fibrillation rate, and duration since last therapeutic shock;

wherein the duration since last therapeutic shock comprises a first DFSE for fibrillation immediately returning after a recent shock and a fibrillation returning after a long absence and further comprises a second DFSE for fibrillation returning between the two extremes; and

wherein the first DFSE is higher than the second DFSE.

8. (Previously Presented) An ICTD comprising circuitry that performs the method as recited in claim 7.

9. (Previously Presented) An ICTD comprising a computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 7.

10. (Previously Presented) A computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 7.

11. (Previously Cancelled)

12. (Previously Presented) A method as recited in claim 13 further comprising:

detecting a cardiac atrial fibrillation (AF);

administering a therapeutic shock to an atria of the patient at the adjusted AF-DFSE set by the adjusting.

13. (Currently Amended) A method for determining an improved atrial fibrillation defibrillation shock energy (AF-DFSE) for a patient, the method comprising:

monitoring and tracking cardiac data of a patient by an implantable cardiac therapy devices (ICTDs) , wherein such data comprises atrial activity data;

analyzing such cardiac data by the ICTD;

automatically adjusting the AF-DFSE to a level based on cardiac data so that the ICTD may deliver a therapeutic shock at an energy level approximating an improved AF-DFSE for the patient;

wherein the cardiac data comprises data selected from a group consisting of cardiac rate, cardiac fibrillation rate, and duration since last therapeutic shock;

wherein the duration since last therapeutic shock comprises a first AF-DFSE for fibrillation immediately returning after a recent shock and a fibrillation returning after a long absence and further comprises a second AF-DFSE for fibrillation returning between the two extremes; and

wherein the first AF-DFSE is higher than the second AF-DFSE.

14. (Previously Presented) A method as recited in claim 13, wherein the improved AF-DFSE for the patient approximately corresponds with an optimum AF-DFSE of the patient.

15. (Previously Presented) An ICTD comprising circuitry that performs the method as recited in claim 13.

16. (Previously Presented) A computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 13.

17. (Previously Cancelled)

18. (Previously Presented) A method as recited in claim 19 further comprising:

detecting a cardiac ventricular fibrillation (VF);

administering a therapeutic shock to an ventricle of the patient at the adjusted VF-DFSE set by the adjusting.

19. (Currently Amended) A method for determining an improved ventricular defibrillation shock energy (VF-DFSE) for a patient, the method comprising:

monitoring and tracking cardiac data of a patient by an implantable cardiac therapy device (ICTD), wherein such data comprises ventricle activity data;

analyzing such cardiac data by the ICTD;

automatically adjusting the VF-DFSE to a level based on cardiac data so that the ICTD may deliver a therapeutic shock at an energy level approximating an improved VF-DFSE for the patient;

wherein the cardiac data comprises data selected from a group consisting of cardiac rate, cardiac fibrillation rate, and duration since last therapeutic shock;

wherein the duration since last therapeutic shock comprises a first VF-DFSE for fibrillation immediately returning after a recent shock and a fibrillation returning after a long absence and further comprises a second VF-DFSE for fibrillation returning between the two extremes; and

wherein the first VF-DFSE is higher than the second VF-DFSE.

20. (Previously Presented) A method as recited in claim 19, wherein the improved VF-DFSE for the patient approximately corresponds with an optimum VF-DFSE of the patient.

21. (Previously Presented) An ICTD comprising circuitry that performs the method as recited in claim 19.

22. (Previously Presented) A computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 19.

23. (Previously Cancelled)

24. (Previously Cancelled)

25. (Previously Cancelled)

26. (Previously Cancelled)

27. (Previously Cancelled)

28. (Previously Cancelled)

29. (Previously Cancelled)

30. (Previously Cancelled)

31. (Previously Presented) A method as recited in claim 7, wherein the magnitude of the therapeutic shock is a linear function of the cardiac fibrillation rate.

32. (Previously Presented) A method as recited in claim 7, wherein the magnitude of the therapeutic shock linearly increases with time since fibrillation onset.

33. (Previously Presented) A method as recited in claim 7, wherein the magnitude of the therapeutic shock is adjusted based on U-shaped correlation with the duration since last therapeutic shock.

34. (Previously Presented) A method as recited in claim 13, wherein the magnitude of the therapeutic shock is a linear function of the cardiac fibrillation rate.

35. (Previously Presented) A method as recited in claim 13, wherein the magnitude of the therapeutic shock linearly increases with time since fibrillation onset.

36. (Previously Presented) A method as recited in claim 13, wherein the magnitude of the therapeutic shock is adjusted based on U-shaped correlation with the duration since last therapeutic shock.

37. (Previously Presented) A method as recited in claim 19, wherein the magnitude of the therapeutic shock varies linearly with the cardiac fibrillation rate.

38. (Previously Presented) A method as recited in claim 19, wherein the magnitude of the therapeutic shock varies linearly with time since fibrillation onset.

39. (Previously Presented) A method as recited in claim 19, wherein the magnitude of the therapeutic shock is adjusted based on U-shaped correlation with the duration since last therapeutic shock.

40. (Previously Cancelled)

41. (Previously Cancelled)

42. (Previously Cancelled)

43. (Previously Cancelled)

44. (Previously Cancelled)

45. (Previously Cancelled)